WEED EATER

TRADEMARK®

OPERATOR'S MANUAL:

Carefully Read and Follow All Safety Rules, Precautions, and Operating Instructions. Failure To Do So Can Result in Serious Personal Injury.

Model: 960 *BLOWER/VACUUM*

U.S. and Foreign Patents Pending

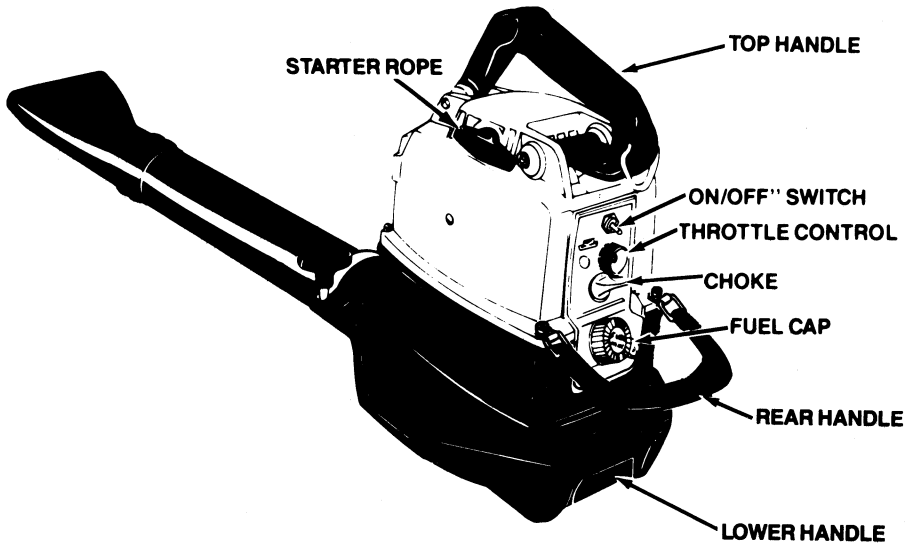
Always Wear Eye Protection During Operation

TABLE OF CONTENTS

SAFETY RULES AND PRECAUTIONS 3
KNOW YOUR UNIT 4
ASSEMBLY 5
ENGINE INFORMATION 7
A. Fueling Your Unit 7
B. Pre-Operation Checks 7
C. Starting Instructions 8
D. Engine Adjustments 9
USING YOUR UNIT AS A BLOWER 10
A. Operating Instructions 10
B. Operating Tips 10
USING YOUR UNIT AS A VACUUM 11
A. Operating Instructions 11
B. Operating Tips 11
GENERAL MAINTENANCE 12
A. Air Filter Care 12
B. Fuel Tank Upkeep 12
C. Starter Rope Repair 12
D. Storage 13
E. Trouble Shooting Chart 14
PARTS LIST 14
ACCESSORIES 19
PARTS AND SERVICE . . . . . Back Cover

SPECIFICATIONS

ENGINE TYPE:	2 Cycle Air Cooled	MUFFLER:	Lo Tone
DISPLACEMENT:	28.0 cc		
ENGINE RPM:	Operating — 7500-8200 Idle — 2800-3600	VELOCITY:	150 mph
		AIR VOLUME :	340 cu. ft./min.
IGNITION:	Solid State	SPARK PLUG:	CJ-8
CARBURETOR:	All Position - Diaphragm	SPARK PLUG GAP:	.025"
ON/OFF SWITCH:	Positive Toggle Switch	MODULE AIR GAP:	.010" - .014"
STARTER:	Auto Rewind	LUBRICATION:	Gasoline/Oil Mixture — See Page 7
FUEL TANK:	13.5 fl. oz.		



SPECIAL NOTICE

For users on U.S. Forest Land and in the states of California, Maine, Oregon and Washington. All U.S. Forest Land and the states of California (Public Resources Codes 4442 and 4443), Oregon and Washington require, by law, that certain internal combustion engines operated on forest, brush and/or grass-covered areas be equipped with a spark arrestor, maintained in effective working order, or the engine be constructed, equipped and maintained for the prevention of fire. Check with your state or local authorities for regulations pertaining to these requirements. Failure to follow these requirements could subject you to liability or to a fine. **This unit is not factory-equipped with a spark arrestor.** If these items are required in your area, ask your dealer to install Kit # 69207 .

SAFETY RULES & PRECAUTIONS

Failure to follow all Safety Rules and Precautions could result in serious personal injury.

A. KNOW YOUR UNIT

1. **Read your Operator's Manual carefully until you completely understand and follow all safety rules, precautions, and operating instructions before operating the unit.**
2. **Restrict your unit to users who understand and follow all safety rules, precautions, and operating instructions in this manual.**

B. PLAN AHEAD

1. ***Always wear eye protection to prevent rocks or debris from being blown or ricocheting into eyes and face which can result in loss of vision or serious personal injury.***
2. **Always wear a respirator or facemask when working with the blower in dusty environments.**
3. **Dress safely in long pants.** Do not wear loose clothing, jewelry, short pants or sandals; or go barefoot.
4. **Do not operate the unit when you are tired, ill, or upset; or if you are under the influence of alcohol, drugs, or medication.**
5. ***Keep children, bystanders and animals away from the work area, a minimum of 30 feet (10 meters), when starting or operating the unit.***
6. **Inspect the area before starting the unit.** Remove all debris and hard or sharp objects such as rocks, glass, wire, etc. that can be blown or cause damage during operation. As a vacuum, the unit is designed to pick up dry material such as leaves, grass, small twigs and bits of paper. Do not vacuum stones, gravel, metal, broken glass etc. to avoid severe damage to the impeller. Do not attempt to vacuum water or other liquids to avoid damage to the engine.

C. HANDLE FUEL WITH CAUTION

1. **Eliminate all sources of sparks or flame** (including smoking, open flames, or work that can cause sparks) in the areas where fuel is mixed, poured, or stored.
2. **Mix and pour fuel in an outdoor area; store fuel in a cool, dry, well-ventilated place; and use an approved, marked container for all fuel purposes.**
3. **Do not smoke while handling fuel or while operating the unit.**
4. **Do not fill the fuel tank while the engine is running or strapped to the operator.**
5. **Wipe up all spills before starting the engine.**
6. **Move at least 10 feet (3 meters) away from fuel and fueling site before starting the engine.**

D. OPERATE YOUR UNIT SAFELY

1. ***Stop the engine before opening the vacuum inlet door or attempting to insert or remove the suction tube.*** *The engine must be stopped and the impeller blades no longer turning to avoid contact with the rotating blades.*
2. **Inspect the entire unit before each use for worn, loose, missing or damaged parts.** Do not use until the unit is in proper working order.
3. **Keep the outside surfaces free of oil and fuel.**
4. **Never start or run the engine inside a closed room or building.** Exhaust fumes contain dangerous carbon monoxide.
5. **Do not wear rubber or any other insulated gloves when using the unit as a vacuum to avoid static electricity shock.**
6. **Do not set the unit on the ground to start the engine or while the engine is running.** Debris such as gravel, sand, dust, grass, etc. could be picked up by the air intake and thrown out through the discharge opening, damaging the unit, property or causing serious personal injury to bystanders or the operator.
7. **Avoid dangerous environments.** Do not use in unventilated areas or where explosive vapors or carbon monoxide build up could be present.
8. **Do not overreach** or use from unstable surfaces such as ladders, trees, steep slopes, rooftops, etc. Keep firm footing and balance at all times.
9. **Never place objects inside the blower tubes; always direct the blowing debris away from people, animals, glass, and solid objects** such as trees, automobiles, walls, etc. The force of air can cause rocks, dirt, or sticks to be thrown or to ricochet which can hurt people or animals, break glass or cause other damage.
10. **Never place any object in the air intake opening** as this could restrict proper air flow and cause damage to the unit.
11. **Never run the unit without the proper equipment attached.** When used as a blower, always install a blower tube. When used as a vacuum, always install the suction tube and collection bag assembly. Make sure the collection bag assembly is completely zipped when the unit is running to avoid flying debris.
12. **Always use the shoulder strap attached to the collection bag when vacuuming** to avoid loss of control.
13. **Never use for spreading or misting chemicals, fertilizers or toxic substances.**
14. **Avoid situations that could catch the collection bag on fire.** Do not operate near an open flame. Do not vacuum warm ash from fireplaces, barbecue pits, brush piles, etc. Do not vacuum discarded cigars or cigarettes unless cinders are completely cool.
15. **Use only for jobs explained in this manual.**

E. MAINTAIN YOUR UNIT PROPERLY

1. **Maintain the unit according to recommended procedures.**
2. **Disconnect spark plug before performing maintenance** except for carburetor adjustment.
3. **Use only genuine replacement parts as recommended by the manufacturer to avoid creating a hazard and/or voiding your warranty.**
4. **Check air intake openings and blower tubes frequently, always with the engine stopped.** Keep vents and discharge tubes free of debris which can accumulate and restrict proper air flow.
5. **Never make engine adjustments with the unit strapped to the operator.**
6. **Drain fuel from the fuel tank before storing for 30 or more days.**
7. **Do not use any accessory or attachment other than those recommended by the manufacturer for use with your unit.**
8. **Do not store the unit or fuel in a closed area where fuel vapors can reach sparks or an open flame from hot water heaters, furnaces, etc.**
9. **Store in a dry area out of the reach of children.**

SAVE THESE INSTRUCTIONS

KNOW YOUR UNIT

A. INTRODUCTION

Your unit is a high performance product designed for tough jobs.

Special Features Include:

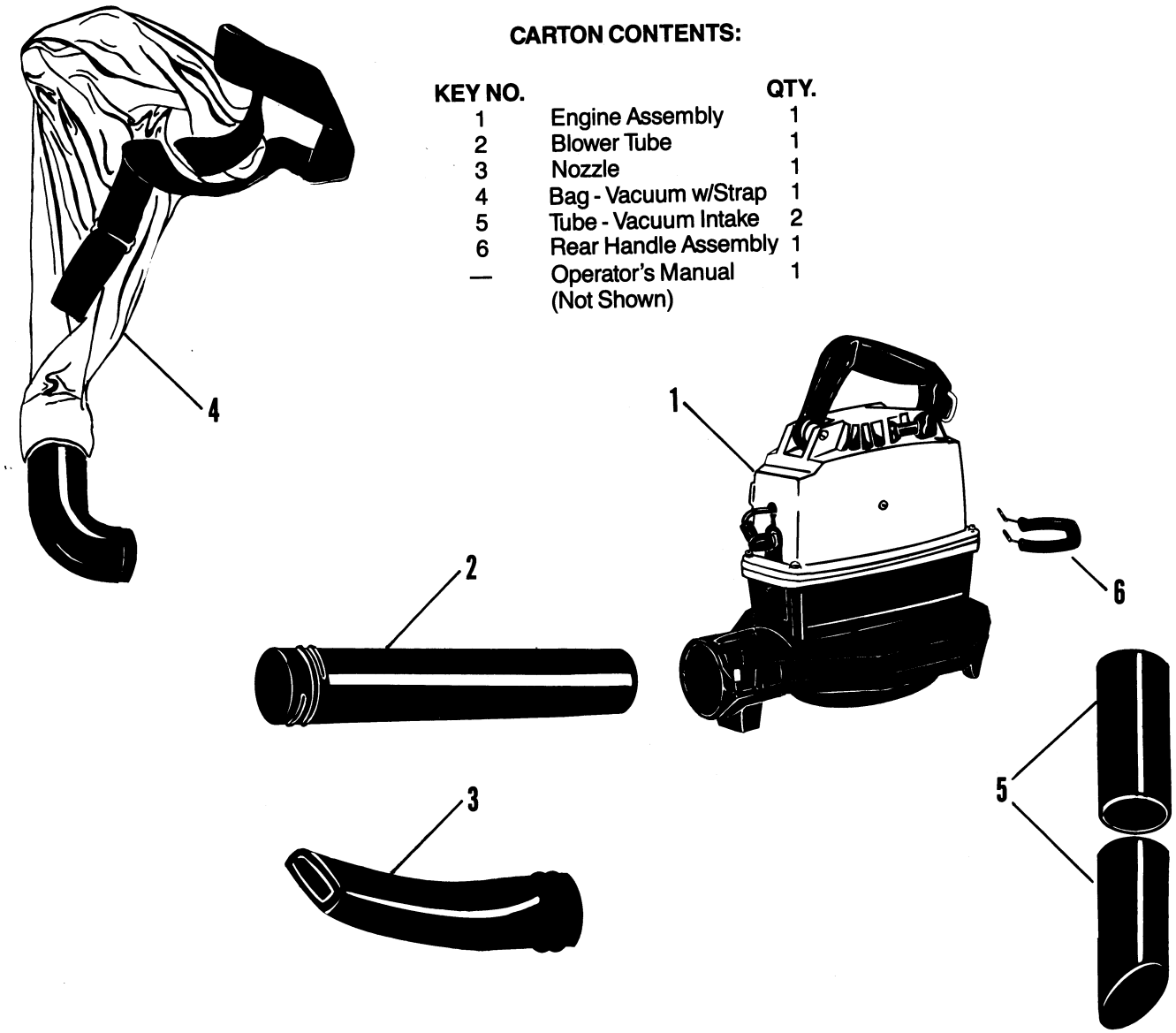
- **Top Handle for One-handed Operation**
- **Rear Handle for Versatile Two-handed Operation**
- **Direct Drive**
- **Vibration — Dampened Handle**
- **Weight - 11.5 lbs.**
- **Easy Conversion to Vacuum Capability**
- **2-Bushel Heavy-Duty Collection Bag w/Strap**
- **Convenient Upright Storage**

B. UNPACKING INSTRUCTIONS

1. Remove contents from the carton if you have not done so.
2. Check parts against the list below.
3. Examine parts for damage.
4. *Notify your dealer immediately if a part is missing or damaged.*

CARTON CONTENTS:

KEY NO.		QTY.
1	Engine Assembly	1
2	Blower Tube	1
3	Nozzle	1
4	Bag - Vacuum w/Strap	1
5	Tube - Vacuum Intake	2
6	Rear Handle Assembly	1
—	Operator's Manual (Not Shown)	1

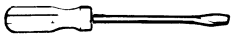


ASSEMBLY

A. PREPARATION

Your Operator's Manual has been developed to help you assemble the unit and to understand its safe operation. It is important that you read your manual completely to become familiar with the unit *before* you begin assembly.

1. **READ YOUR OPERATOR'S MANUAL.**
2. **The only tool you will need is a slotted screwdriver.**



B. REAR HANDLE ASSEMBLY

1. Stop Engine
2. Remove the two screws shown in Figure 1 with a screwdriver.
3. Align the handle over the screw openings and reinstall screws.
4. Tighten screws securely with a screwdriver.

C. BLOWER ASSEMBLY

1. Thread the nozzle onto the blower tube and firmly tighten.
2. Slide the blower tube and nozzle assembly into the engine housing until it bottoms out (approximately 2-1/2 inches). Figure 1.
3. Align the blower assembly so that it is pointing up toward the handle as shown in Figure 1.
4. Secure the blower assembly by tightening the knob shown in Figure 1 until hand-tight.

D. VACUUM CONVERSION

⚠ WARNING
Stop engine before opening the vacuum inlet door or attempting to insert or remove the suction tube. The engine must be stopped and the impeller blades no longer turning to avoid contact with the rotating blades.

1. Stop Engine
2. Loosen the knob (Figure 1) and remove the blower tube from the engine.
3. Set the unit on a flat surface and unthread the thumb nut holding the vacuum inlet door closed as shown in Figure 2. Hold the door open.
4. Using a screwdriver, unthread the screw (see Inset, Figure 3) holding the clamp together enough to loosen the clamp.

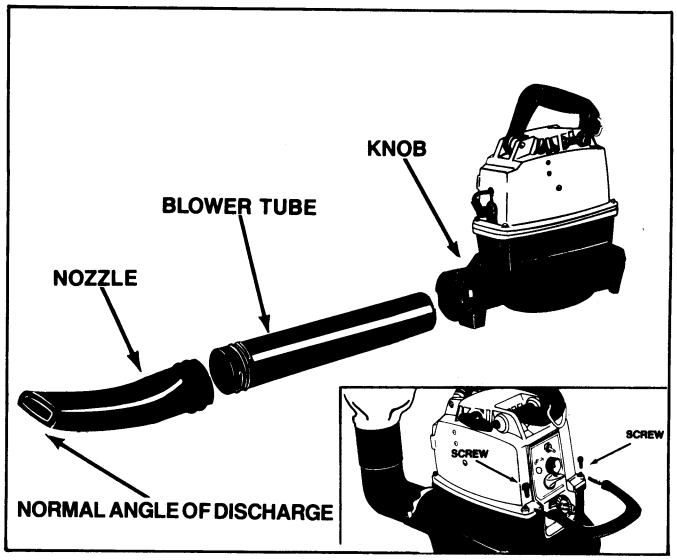


Figure 1

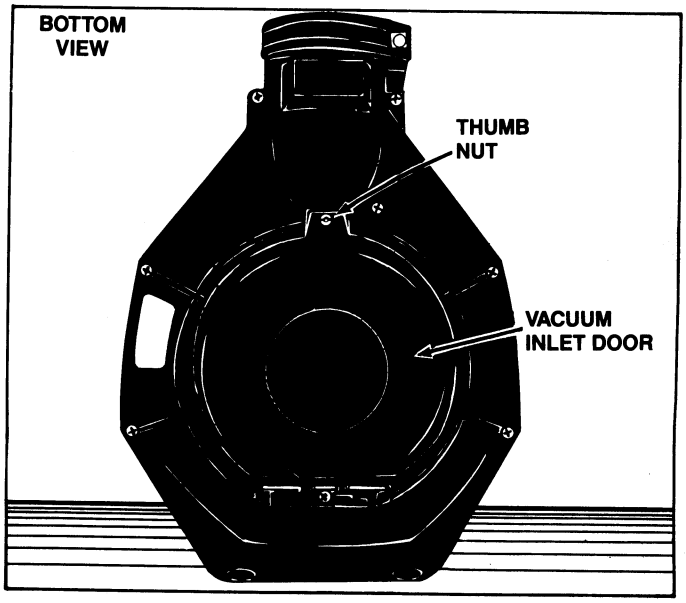


Figure 2

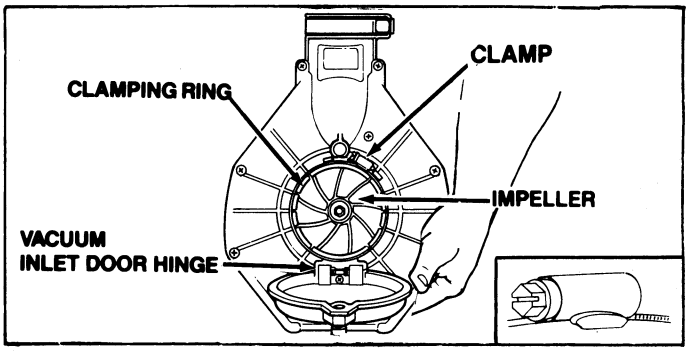


Figure 3

5. Assemble the suction tube. Firmly push the two pieces together until the square end of the slanted section bottoms out inside the flared end of the straight section (about 4-1/2 inches). Figure 4.

   NOTE: Observe that one end of the suction tube is cut at an angle and the other end is straight. Figure 5

6. Hold open the vacuum inlet door and slide the straight end of the suction tube into the opening until it bottoms out (about 3/4 inch). Figure 5.

   NOTE: Make sure the warning decal and the shorter length of the suction tube is aligned with the blower outlet as shown in Figure 5 and is readable from the operating position.

7. Secure the suction tube by tightening the clamp screw with a screwdriver.

8. Slide the collection bag tube into the blower outlet until it bottoms out (about 2-1/2 inches). Figure 6.

9. Align the notch on the collection bag tube with the center seam of the blower outlet as shown in Figure 5, then secure the collection bag tube to the engine with the knob until hand-tight.

10. **Shoulder Strap Adjustments**

    a. Try on the collecion bag strap and adjust for comfort before starting the engine.

    b. Make sure the collection bag strap is adjusted to allow a free flow of air from the elbow tube as shown in Figure 7. If the bag is kinked, the unit will not operate properly.

    NOTE: The controls on the engine are directed forward when the unit is used as a vacuum. See operating position in Figure 14, page 11.

⚠ WARNING

Do not use the unit as a vacuum without the suction tube and collection bag properly attached to avoid flying debris and/or impeller contact which can cause serious personal injury. Always make sure the collection bag is completely zipped before the engine is started.

E. BLOWER CONVERSION

1. Stop engine.
2. Loosen the screw and knob on the clamps, then remove suction tube and collection bag assembly.
3. Secure the vacuum inlet door closed by aligning the thumb nut on the door over the threaded stud on the engine housing and turning the thumb nut until finger-tight.
4. Reinstall blower tube as shown on page 5.

CAUTION: Over tightening the clamp screw can break the housing clamping ring. Retighten the clamp screw just enough to snugly secure the clamp on the housing.

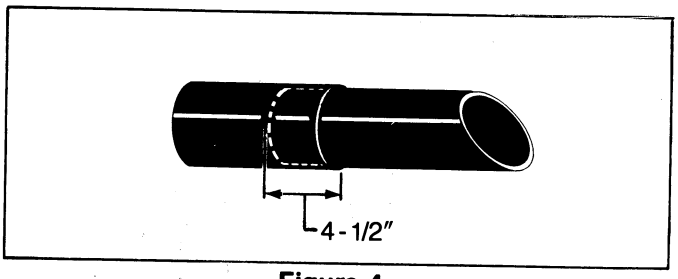


Figure 4

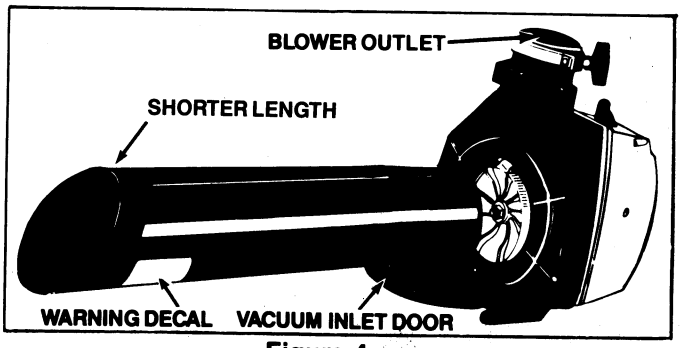


Figure 4

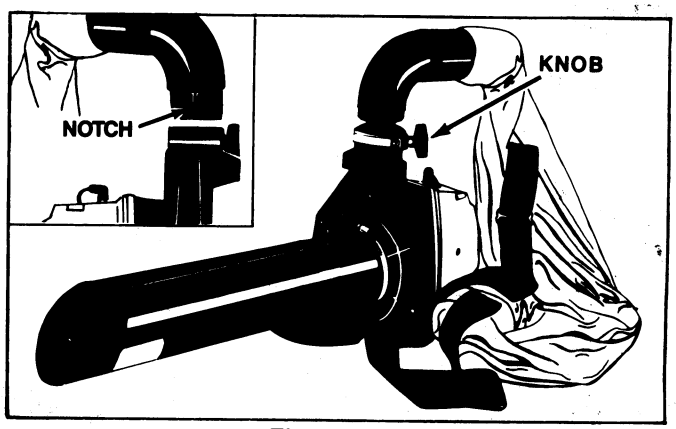


Figure 5

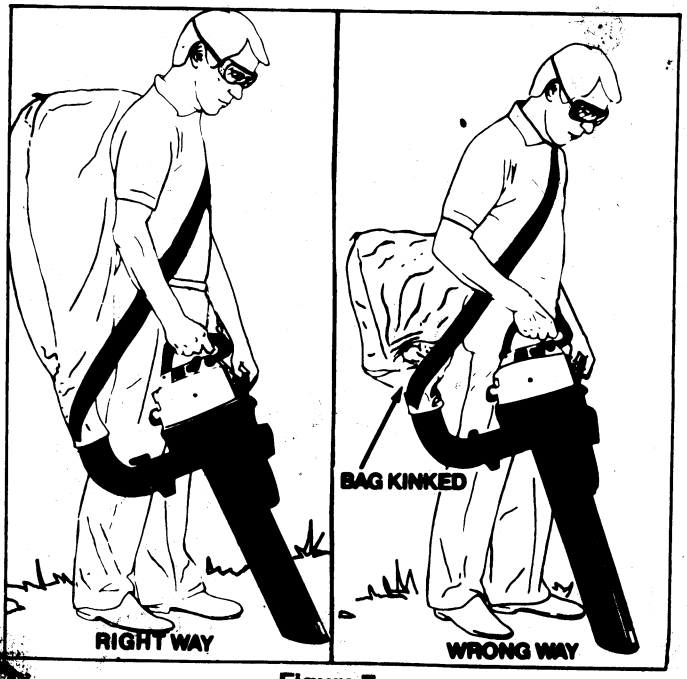


Figure 7

ENGINE INFORMATION

A. FUELING YOUR UNIT (See "Specifications," page 2, for location of Fuel Cap.)

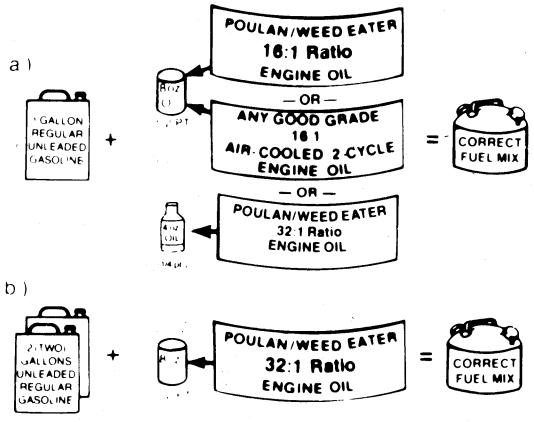
1. FUEL MIXTURE

- **Your unit is powered by a 2-cycle engine which requires a fuel mixture of regular gasoline, leaded or unleaded and a high quality engine oil specially made for 2-cycle air-cooled engines.** The internal design of the 2-cycle engine requires lubrication of moving parts. Lubrication is provided when you use the recommended mixture of gasoline and oil.
- **Gasoline must be clean and not over two months old.** After a short period of time, gasoline begins to chemically break down and will form compounds that can cause hard starting and damage in 2-cycle engines.
- **The correct measure of gasoline to oil is very important.** Too much oil will foul the spark plug.

  CAUTION: Too little oil will cause the engine to overhead and seize.
- **Always mix the fuel thoroughly in a container** since gasoline and oil do not readily combine. *Do not try to mix fuel directly in the fuel tank.*

2. USE THE FOLLOWING:

Two types of Poulan/Weed Eater Engine Oil are available — one blended to be mixed at a 16:1 ratio and the other at a 32:1 ratio.



CAUTION: If you use a 32:1 fuel mix, you *must* use genuine Poulan/Weed Eater 32:1 Engine Oil or engine damage can occur. Do not use a gasoline/oil mix with a ratio greater than 32:1.

3. HOW TO MIX FUEL AND FILL TANK.

a. Pour 1/2 gallon of regular unleaded gasoline into an approved, marked container. *Do not try to mix oil and gasoline directly in the fuel tank.*
b. Add entire measure of engine oil.
c. Cover container tightly and shake for one minute.
d. Add remainder of gasoline.
e. Cover container tightly and shake again.
f. Remove the fuel cap. Refer to "Specifications," page 2, for fuel cap location.
g. Fill the tank using a spout or funnel.
h. Reinstall the fuel cap securely.

4. DO NOT USE:

- **BIA OIL (Boating Institute of America) —**
  — Does not have proper additives for air-cooled, 2-cycle engines and can cause damage.
- **AUTOMOTIVE OIL —**
  — Does not have proper additives for 2-cycle engines and can cause damage.
- **GASOLINE CONTAINING ALCOHOL (High Test, Premium or Gasohol) —**
  — Stiffens critical carburetor fuel metering elements and causes engine damage from overheating.
  — Increases vapor lock (causes hard starting).
  — Attracts water causing corrosion damage.

5. IMPORTANT POINTS TO REMEMBER

a. **Use only recommended fuel mixtures.**
b. **Eliminate all sources of sparks or flame in the areas where fuel is mixed, poured, or stored.** There should be no smoking, open flames or work that can cause sparks.
c. **Use an approved, marked container for all fuel purposes.**
d. **Mix and pour fuel in an outdoor area. Store fuel in a cool, dry, well-ventilated place.** Gasoline vapors are harmful to your health and can cause serious hazards, such as explosion and fire. Use a funnel or spout when pouring fuel.
e. **Wipe up all fuel spills before starting the engine.**
f. **Move at least 10 feet (3 meters) away from fuel and fueling site before starting the engine.**

B. PRE-OPERATION CHECKS

Before operating your unit, always:

1. ✓ **CHECK OVER SAFETY RULES AND PRECAUTIONS** in this Operator's Manual. Make certain you completely understand and follow each one.

2. ✓ **CHECK THE AIR FILTER.**
Clean the filter if dirty *before* operating the unit. See Figure 15, page 12.

3. ✓ **CHECK THE UNIT FOR LOOSE BOLTS, NUTS, OR FITTINGS.**
Tighten, repair or replace parts as necessary. You will need a Phillips screwdriver and a slotted screwdriver. Use only genuine replacement parts as recommended by the manufacturer.

4. ✓ **CHECK THE FUEL TANK.**
Fill with a clean, fresh fuel mixture according to instructions in fuel mixture section, this page.

C. STARTING INSTRUCTIONS (Refer to "Specifications," page 2, for location of controls.)

⚠WARNING
Hold the unit for starting as shown in Figure 8. Do not set the unit on the ground to start the engine or while the engine is running. Debris such as gravel, sand, dust, grass, etc. could be picked up by the air intake and thrown out through the discharge opening, damaging the unit or property or causing serious personal injury to bystanders or the operator.

1. STARTING PROCEDURE

a. **Hold the unit in the starting position** as shown in Figure 8. Make sure the end of the unit is directed away from people, animals, glass and solid objects.

b. **Move the ignition switch to the "On" position.** Figure 9.

c. **Turn the throttle control knob clockwise to the "Fast" position.** Figure 10.

d. **Turn choke knob to "On" position.** Figure 11.

e. **Hold handle with your right hand and pull starter handle with your left hand until the engine fires** (attempts to run).

NOTE: Do not let the starter rope snap back between pulls. Hold the handle and let the rope rewind slowly.

f. **Turn choke knob to "Half" position and pull starter handle until engine runs.** Figure 11.

g. **Allow engine to warm-up as indicated below, then turn choke knob to the "Off" position.** Figure 11.
— Above 40°F, warm-up 10-20 seconds.
— Below 40°F, warm-up 45-60 seconds.

h. **Stop engine by moving ignition switch to the "Off" position.** Figure 9.

2. IMPORTANT POINTS

a. **When starting the engine, always pull the starter rope sharply and quickly, but not more than 10 times to avoid flooding the engine.** If flooding occurs, turn choke to the "Off" position (Figure 11) and pull starter rope until engine starts.

b. **Start a cold engine** with the choke at the "On" position. Figure 11.

c. **Start a warm engine** with the choke at the "Off" position. If unit fails to start within 2 pulls, move choke to the "Half" position. Figure 11.

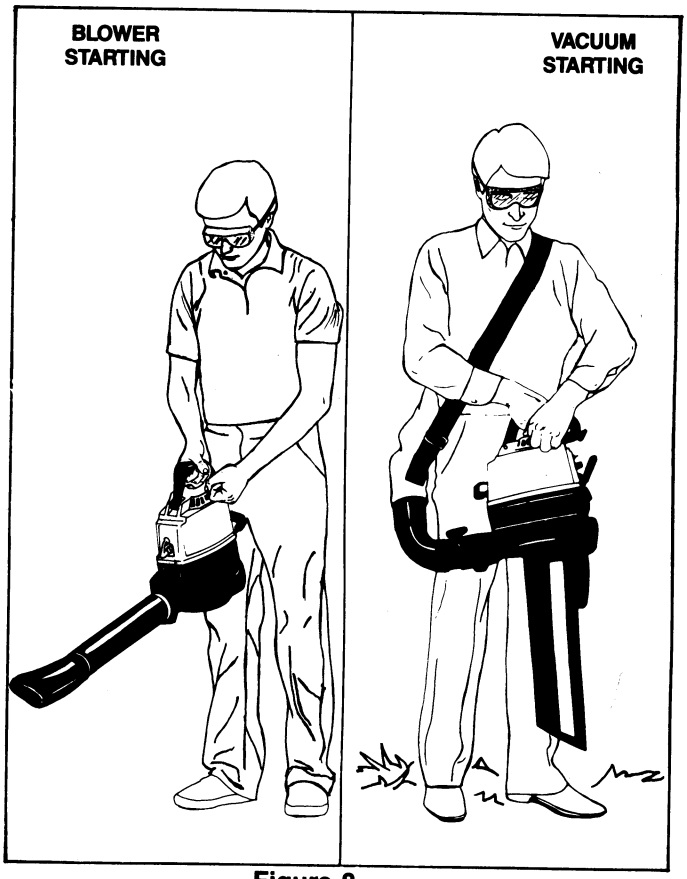


Figure 8

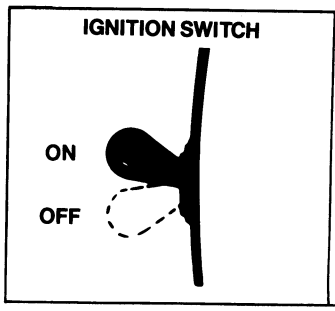


Figure 9

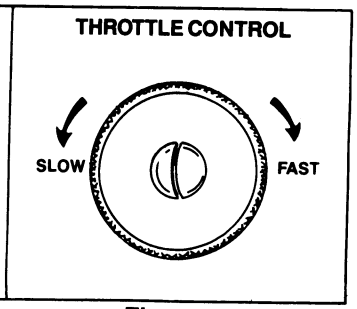


Figure 10

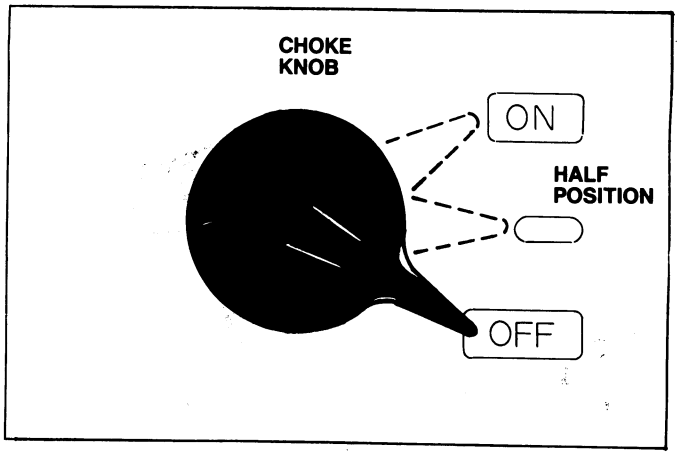


Figure 11

D. ENGINE ADJUSTMENTS

1. CARBURETOR ADJUSTMENTS

The carburetor has been carefully adjusted at the factory. Due to changes in altitude and operating conditions, your carburetor may require adjusting. **It is best to let your authorized service dealer make this adjustment;however, this service is not warranty covered.** If you choose to make the adjustment yourself, follow the procedure below very carefully:

a. **PREPARATION**

1.) Use fresh fuel mix. See Fuel Mixture page 7.
2.) Remove air filter.
3.) Turn mixture screw clockwise ➡ until fully closed, but **do not overtighten.** Figure 12. Unscrew mixture screw one full turn counterclockwise ⬅ .
4.) Turn **Idle Speed Screw** clockwise ➡ until it stops. **Do not overtighten.** Open screw three full turns counterclockwise ⬅ .

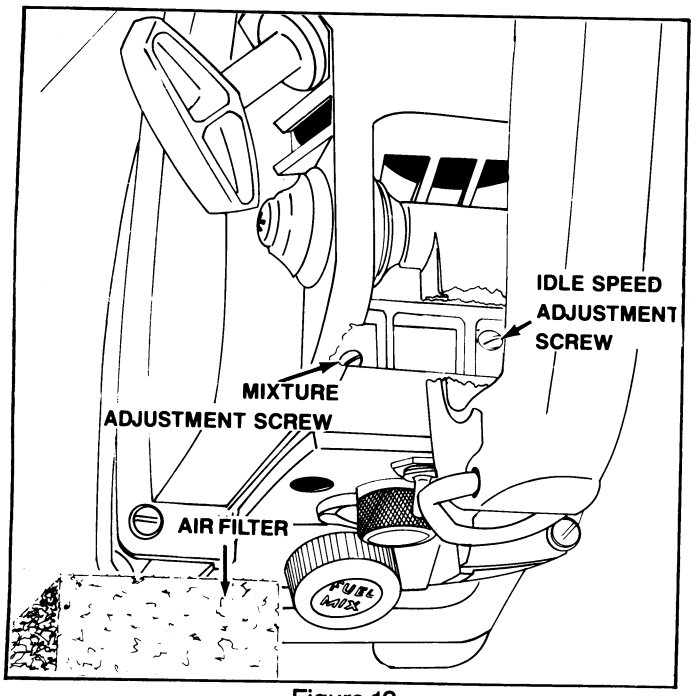


Figure 12

b. **IDLE SPEED ADJUSTMENT**

1.) Start the engine and turn throttle control to halfway between "Fast" and "Slow".
2.) Operate the unit for 3 minutes to warm up engine.
3.) Turn throttle control counterclockwise ⬅ to slow setting.
4.) Adjust the **Idle Speed Screw** until the engine idles as slow as possible without the engine stalling.

— *Turn screw clockwise ➡ if the engine stalls:*
— *Turn screw counterclockwise ⬅ to slow engine down.*

CAUTION: The mixture setting is a highly critical adjustment. If set incorrectly, permanent damage will occur to the engine. Do not operate engine at fast throttle for prolonged periods while making the mixture adjustment. *The mixture screw should be in the range of 3/4 to 1-1/4 turns open.*

c. **MIXTURE ADJUSTMENT:**

1.) Adjust throttle knob to "Fast" position.
2.) Turn the **Mixture Screw slowly** clockwise ➡ until the engine speed is reduced. Note position.
3.) Turn the screw **slowly** counterclockwise ⬅ . Stop when the engine just begins to run rough.
4.) Turn the screw **slowly** the **minimum amount** clockwise ➡ until the engine runs smoothly.

d. **REINSTALL AIR FILTER**

CAUTION: The air filter must be fitted into the corners of the housing and under the center tab to avoid engine damage.

2. SPARK PLUG

Check spark plug periodically and replace as necessary. Set the electrode gap at .025".

NOTES

USING YOUR UNIT AS A BLOWER

A. OPERATING INSTRUCTIONS

1. **Read your Operator's Manual.** Make certain you completely understand and follow all safety rules, precautions, and operating instructions, before operating the unit.
2. ***Always wear eye protection to prevent rocks or debris from being blown or ricocheting into eyes and face which can result in loss of vision or serious personal injury.***
3. **Always wear a respirator or facemask when working in dusty environments.**
4. **Dress safely in long pants.** Do not wear loose clothing, jewelry, short pants or sandals; or go barefoot.
5. **Check the unit before operation.** Look for worn, loose, missing or damaged parts. Do not use until the unit is in proper working order.
6. **Inspect the area before starting unit.** Remove all debris and hard objects such as rocks, glass, wire, etc. that can be blown or cause damage during operation.
7. ***Keep observers, children, bystanders, and animals safely away.*** *Before starting the engine and during operation, make certain children, animals and bystanders are away from the work area - a minimum of 30 feet (10 meters).*
8. **Check air intake opening and blower tubes frequently, always with the engine stopped.** Keep vents and discharge tubes free of debris which can accumulate and restrict proper air flow.
9. **Use the correct operating position.** (Figure 13.) Do not overreach or use from unstable surfaces such as ladders, trees, steep slopes, roof tops, etc. Keep firm footing and balance at all times.
10. **Never place objects inside the blower tubes; always direct the blowing debris away from people, animals, glass, and solid objects** such as trees, automobiles, walls, etc. The force of air can cause rocks, dirt, or sticks to be thrown or to ricochet which may hurt people or animals, break glass, or cause other damage.

ALWAYS USE EYE PROTECTION
USE RESPIRATOR OR FACEMASK FOR DUSTY ENVIRONMENTS
OPERATION WITH TOP AND LOWER HANDLES
TOP HANDLE
CONTROL PANEL TO THE REAR
REAR HANDLE
LOWER HANDLE

Figure 13

⚠ WARNING

Hold the unit for starting as shown in Figure 8. Do not set the unit on the ground to start the engine or while the engine is running. Debris such as gravel, sand, dust, grass, etc. could be picked up by the air intake and thrown out through the discharge opening, damaging the unit or property or causing serious personal injury to bystanders or the operator.

B. OPERATING TIPS

1. **Always work going away from solid objects such as walls, large stones, automobiles and fences.**
2. **Clean spaces with corners by starting in corners and moving outward to straight areas** to prevent an accumulation of debris which could fly into face.
3. **Be careful when working near plants.** The force of the air could damage tender plants.
4. **Direct air flow by adjusting the nozzle.**
5. **Vary or reduce the air flow by setting the throttle knob at any position from "Fast" to "Slow."**
6. **Use the handle located on the bottom of the unit below the control panel when working above the waist or when a two-handed grip is desired.** Refer to the unit drawing, page 2, and Figure 13, this page.

⚠ WARNING

Always wear eye protection to prevent rocks or debris from being blown or ricocheting into the eyes and face which can result in loss of vision or serious personal injury.

7. **Uses For Your Blower:**
   a. Sweeping debris or grass clippings from driveways, sidewalks, patios, park, parking lots, barns, stadiums, etc.
   b. Gathering grass clippings, straw or leaves into piles.
   c. Fast drying wet, outdoor areas such as a patio.
   d. Removing debris from corners, around joints and between bricks.
   e. Blowing light snow from driveways, sidewalks or patios.

USING YOUR UNIT AS A VACUUM

A. OPERATING INSTRUCTIONS

As a vacuum, the unit is designed to pick up dry material such as leaves, grass, small twigs and bits of paper. Do not attempt to vacuum stones, gravel, metal, broken glass, etc. to avoid severe damage to the impeller.

1. **Read your Operator's Manual.** Make certain you completely understand and follow all safety rules, precautions, and operating instructions, before operating the unit.
2. ***Always wear eye protection to prevent rocks or debris from being blown or ricocheting into eyes and face which can result in loss of vision or serious personal injury.***
3. **Dress safely in long pants.** Do not wear loose clothing, jewelry, short pants or sandals; or go barefoot.
4. **Check the unit before operation.** Look for worn, loose, missing or damaged parts. Do not use until the unit is in proper working order.
5. **Inspect the area before starting the unit.** Remove all debris and objects such as rocks, glass, wire, large sticks, etc. that can cause damage during operation.
6. ***Keep observers, children, bystanders, and animals safely away.*** *Before starting the engine and during operation make certain people and animals are away from the work area - a minimum of 30 feet (10 meters).*
7. **Check air intake opening and collection bag tube frequently, always with the engine stopped.** Engine RPM will increase significantly when the suction or collection bag tube is clogged. Keep vents and tubes free of debris which can accumulate and restrict proper air flow.
8. **Use the correct operating position.** (Figure 14.) Do not overreach or use from unstable surfaces such as ladders, trees, steep slopes, roof tops, etc. Keep firm footing and balance at all times.
9. **Do not wear rubber or any other insulated gloves to avoid static electricity shock.**
10. **Never run the unit without the proper equipment attached.** Always install the suction tube and collection bag. Make sure the collection bag assembly is completely zipped when the unit is in use to avoid flying debris.
11. **Always use the collection bag shoulder strap** to avoid loss of control.

⚠ WARNING

Do not insert or remove suction tube with engine running to avoid serious personal injury. Always stop the engine before unclogging the unit or performing any maintenance on the collection bag.

Figure 14

B. OPERATING TIPS

1. **Move the unit slowly back and forth over debris to be vacuumed.** Avoid forcing the suction tube into a pile of debris as this can clog the unit.
2. **If the unit becomes clogged:**
   a. Stop the engine and disconnect the spark plug. *Do not attempt to remove obstructions with engine running.*
   b. Wait until the impeller has completely stopped turning, then remove the suction tube.
   c. Carefully reach into the vacuum opening and clear out debris.
3. **The collection bag must be properly emptied and maintained to avoid deterioration and obstructing air flow which will reduce the performance of the vacuum.**
   a. Empty the bag after each use. Do not store bag containing wet grass, leaves, etc.
   b. Clean the bag after every three uses by turning the bag inside out after initial emptying and vigorously shaking out dust and excess debris.
   c. Wash the bag once a year
      1). Turn bag inside out
      2). Hang up.
      3). Hose down thoroughly
      4). Hang to dry.

GENERAL MAINTENANCE

A. AIR FILTER CARE

A dirty air filter decreases engine performance and increases fuel consumption.

Clean the Air Filter:

- **Frequently,**
- **Always clean after 5 tanks of fuel or 5 hours of operation, whichever is less.**

Follow these steps:

1. Remove the air filter (located above the control panel; see Figure 15).
2. Wash in soap and water.

CAUTION: Do not clean filter in gasoline or other flammable solvent to avoid creating a fire hazard.

3. Squeeze filter dry.
4. Add a small amount of oil to coat the filter.
   NOTE: Avoid soaking the filter with oil.
5. Squeeze out excess oil.
6. Replace the air filter.
   NOTE: Make sure the filter is properly fitted into the housing, paying particular attention to the corners.

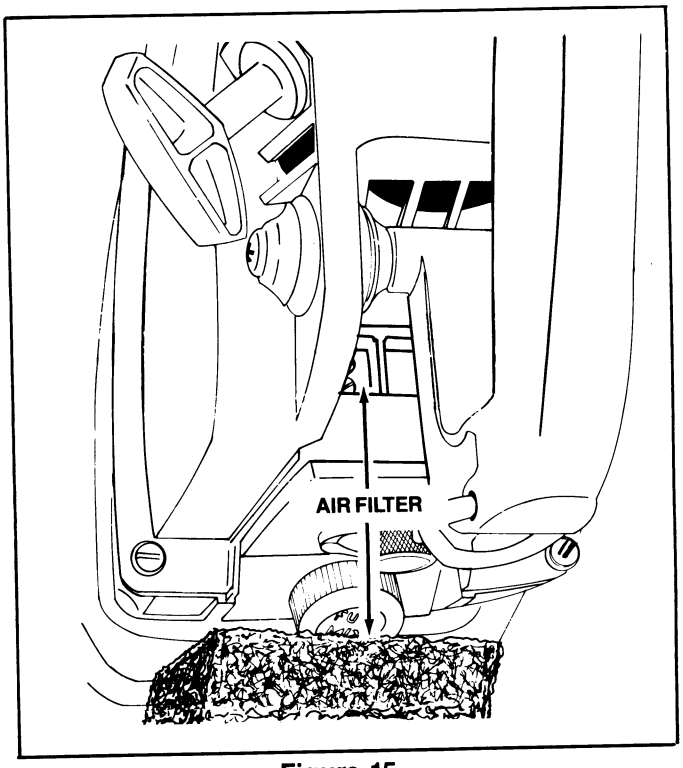


Figure 15

B. FUEL TANK UPKEEP

Never use gasoline that is more than 2 months old in a fuel mixture. Gasoline begins to break down after a short period of time and will form compounds that cause hard starting and damage in 2-cycle engines.

1. **Inspect the unit for fuel leaks each time it is used.** Repair or replace parts as necessary.
2. **Always begin operation with a clean, fresh mixture of fuel.**
3. **Drain all fuel from the unit or allow unit to run out of fuel before storing for 30 or more days.**

C. STARTER ROPE REPAIR

- **Repair the starter rope if the rope breaks next to the pulley.**
- **Replace the starter rope if the rope breaks more than 2-3 inches away from the pulley as the rope will be too short to repair properly.**

⚠ WARNING

Always wear eye protection when servicing the starter rope. The recoil spring, located beneath the pulley, is under tension. If the spring pops out, serious personal injury can result.

- **To repair or replace:**
  1. Disconnect the spark plug wire and remove the 6 screws from the fan housing. Figure 16.
  2. Separate the fan housing completely from the shroud.

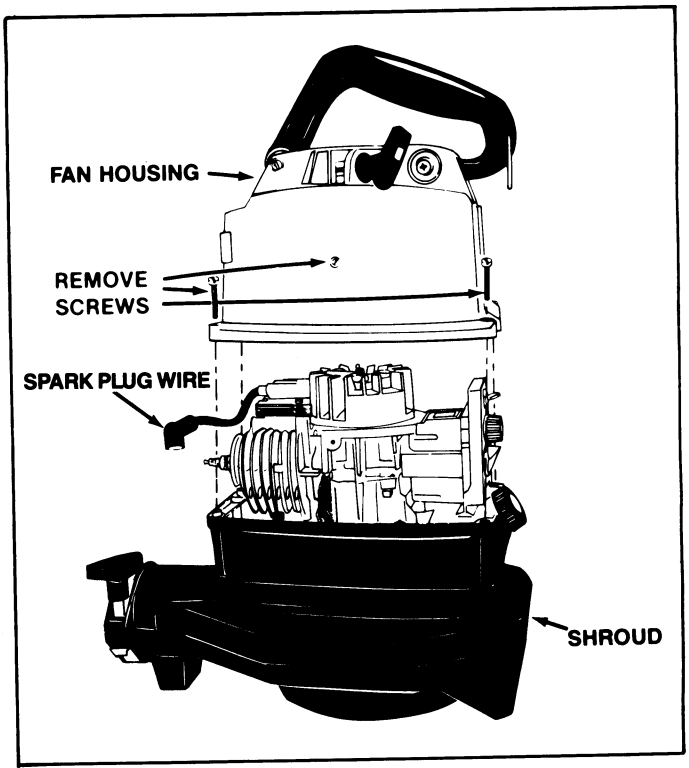


Figure 16

3. If the starter rope is not broken, release the spring's tension by pulling about 10 inches of rope from the pulley and catching the rope in the notch as shown. Figure 17. If the rope is broken, remove the broken piece.

   NOTE: The tension on the starter spring will be released if the rope is broken.

4. Remove screw and pulley very carefully. Figure 17. **The recoil spring which lies beneath the pulley must stay in the housing, flat against the bottom. If the spring is disturbed, it will require considerable time and effort to reinstall.** Twist the pulley gently counter clockwise ← as you pull up to release the spring.
5. Move away from the fuel tank and melt the end of the new rope to go into the pulley.
6. Allow the melted end to drip once; then while the rope is still hot, pull the melted end through a clean rag to obtain a smooth, pointed end.
7. Insert rope through the rope exit hole in the fan housing.
8. Guide rope inside the pulley, then through topside pulley hole by pushing the rope from the underside hole with a small round object such as a Phillips screwdriver. See Insert, Figure 18.
9. Wrap rope counterclockwise ← around pulley ratchet and tuck loose end back under rope leaving a 3/8 to 1/4 inch tail next to the ridge. Figure 18. Pull tightly.
10. Wind all but about 10 inches of the rope counterclockwise ← around pulley.
11. Replace pulley in the housing. Be sure the pulley is all the way down and the spring is secured.
12. Replace and tighten pulley screw. Figure 17.
13. Hold the 10 inch slack in the rope and catch rope in pulley notch. Figure 19.
14. Hold the rope taut and make 2 complete turns of the pulley counterclockwise ← to place tension on the pulley. Hold the pulley to retain tension.
15. Align pulley notch with rope exit hole, pull starter handle to the full extent of the rope and allow the rope to slowly wind around the pulley.
16. Reinstall the fan housing.

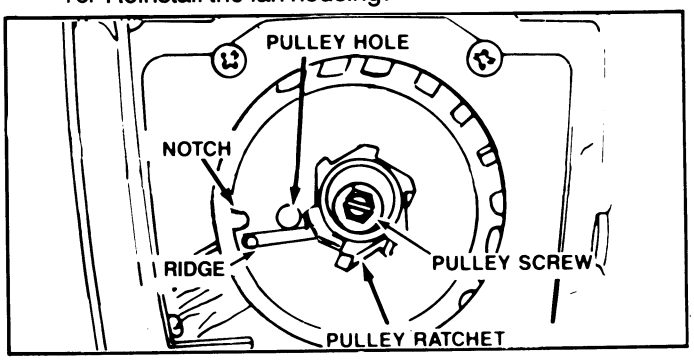


Figure 17

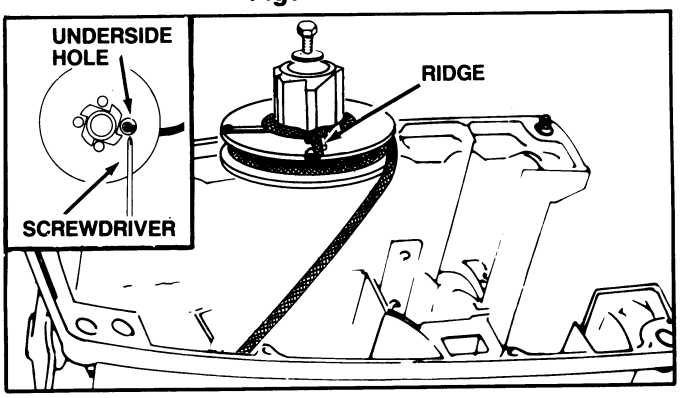


Figure 18

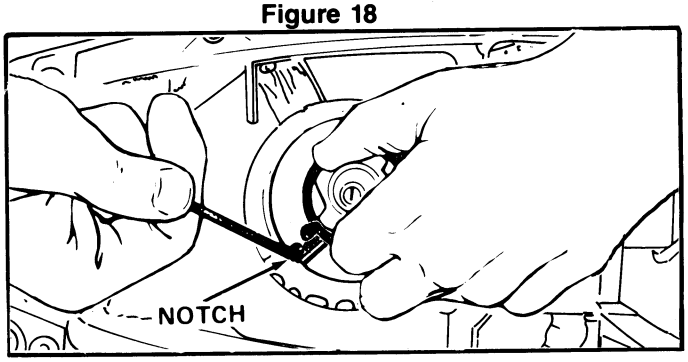


Figure 19

D. STORAGE

1. **Clean the unit before storing.** Pay particular attention to the air intake area, keeping it free of debris. Use a mild detergent and sponge to clean the plastic surfaces.
2. **Do not store the unit or fuel in a closed area where fuel vapors can reach sparks or an open flame from hot water heaters, furnaces, etc.**
3. **Store in a dry area out of reach of children.**

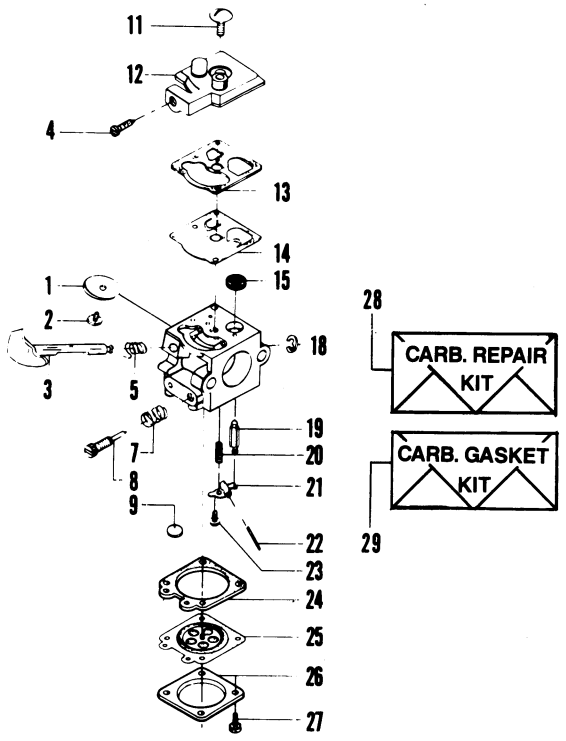
NOTES

E. TROUBLE SHOOTING CHART

TROUBLE	CAUSE	REMEDY
Engine will not start	1. Ignition switch off. 2. Fuel tank empty. 3. Spark plug not firing. 4. Fuel not reaching carburetor. 5. Engine flooded. 6. Compression low.	1. Move switch to "Start". 2. Fill tank with correct fuel mixture. 3. Install new plug. 4. Check for dirty fuel filter; clean. Check for kinked or split fuel line; repair or replace. 5. See Starting Instructions. 6. Contact a qualified service dealer.
Engine will not idle properly	1. Idling speed set too low. 2. Idle speed set too high. 3. Mixture screw requires adjustment. 4. Crankshaft seals worn. 5. Compression low.	1. Adjust idle speed screw clockwise to increase speed. 2. Adjust idle speed screw counter-clockwise to reduce speed. 3. See Carburetor Adjustments. 4. Contact a qualified service dealer. 5. Contact a qualified service dealer.
Engine will not accelerate, lacks power or dies under a load	1. Carburetor requires adjustment. 2. Air filter dirty. 3. Spark plug fouled. 4. Carbon build-up. 5. Low compression.	1. See Carburetor Adjustments. 2. Clean or replace air filter. 3. Clean or replace spark plug and regap. 4. Contact a qualified service dealer. 5. Contact a qualified service dealer.
Engine smokes excessively	1. Choke partially on. 2. Mixture screw requires adjustment. 3. Air filter dirty. 4. Oil rich fuel mixture.	1. Adjust choke. 2. See Carburetor Adjustments. 3. Clean or replace air filter. 4. Empty fuel tank and refill with correct fuel mixture.
Engine runs hot	1. Fuel mixture incorrect. 2. Spark plug incorrect. 3. Carbon build-up. 4. Mixture screw set too low.	1. See Fueling Your Unit. 2. Replace with correct plug. 3. Contact a qualified service dealer. 4. See Carburetor Adjustments.

PARTS LIST

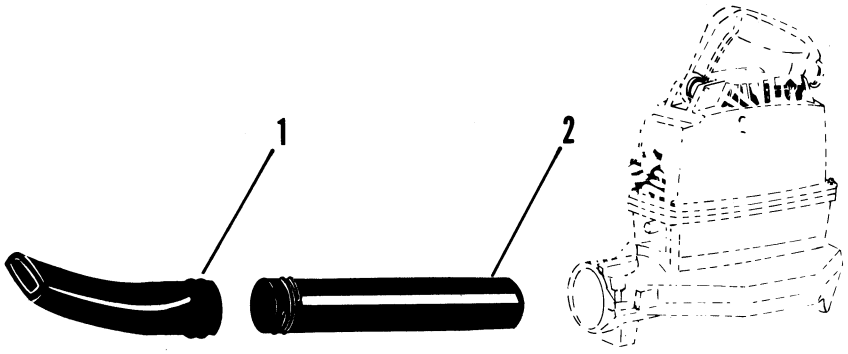
A. Carburetor Assembly #35196



KEY NO.	PART NO.	DESCRIPTION
1	35197	Valve Throttle
2	35015	Screw-Throttle Valve
3	35132	Shaft Assembly-Throttle
4	35156	Idle Speed Screw
5	35138	Spring-Throttle Return
7	35200	Spring-High Speed Mixture Needle
8	35198	Needle-High Speed Mixture
9	35162	*Plug-5/16 Dia. Welch
11	35017	Screw-Pump Cover
12	35191	Cover-Fuel Pump
13	35164	+*Gasket-Fuel Pump
14	35166	+*Diaphragm-Fuel Pump
15	35178	Screen-Fuel Inlet
18	35007	Ring-Throttle Retainer
19	35106	*Valve-Inlet Needle
20	35139	*Spring-Metering Lever
21	35031	*Lever-Metering
22	35028	*Pin-Metering Lever
23	35016	*Screw-Metering Lever Pin
24	35151	+*Gasket-Metering Diaphragm
25	35014	+*Diaphragm-Metering
26	35003	Cover-Metering Diaphragm
27	35021	Screw Assembly-Metering Cover
28	35199	Kit - Carb. Kwik Repair (+Indicates contents)
29	35186	* Kit - Carb. Gasket/Diaphragm (*Indicates contents)

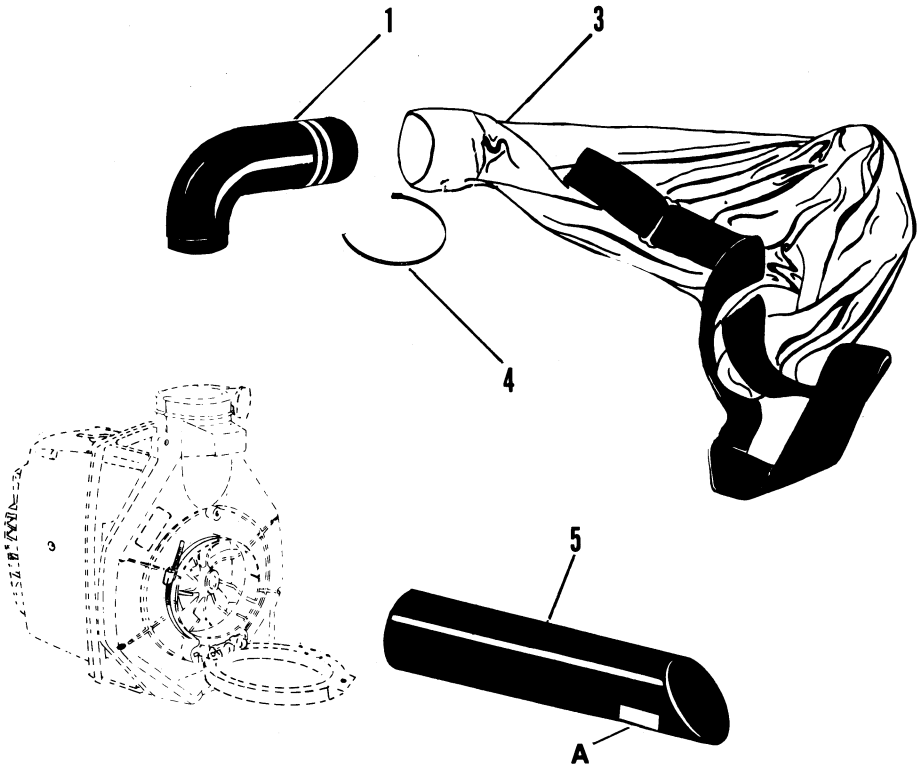
+ Contents in Carb. Kwik Repair Kit
* Contents in Carb. Gasket/Diaphragm Kit

B. Blower Assembly



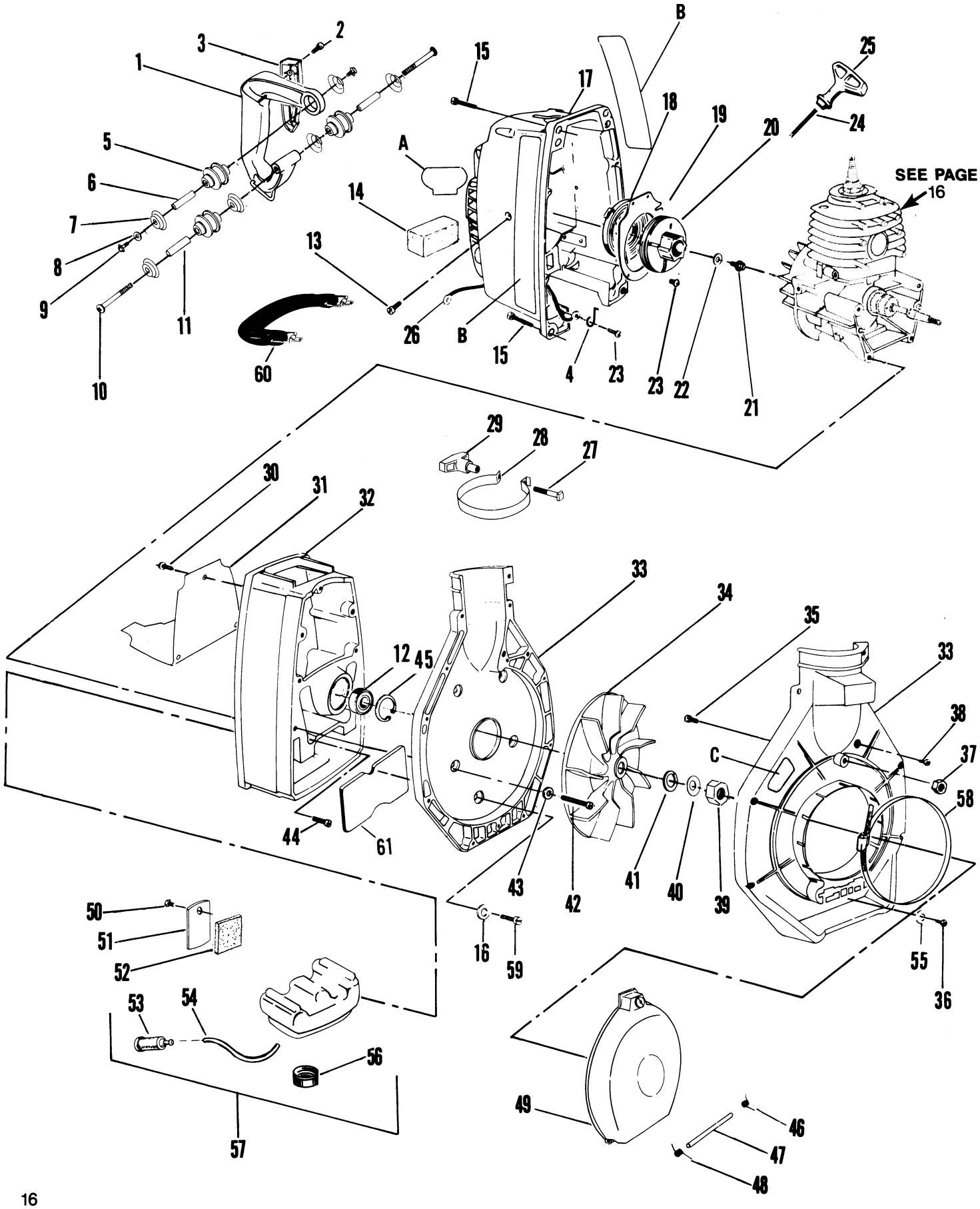
KEY NO.	PART NO.	QTY.	DESCRIPTION
1	94225	1	Nozzle - Blower
2	94224	1	Tube - Blower (Upper)
3	66707	1	Operator's Manual - (not shown)

C. Vacuum Assembly



KEY NO.	PART NO.	QTY.	DESCRIPTION
1	94231	1	Tube-Collection Bag
3	94399	1	Bag-Collection w/Strap
4	15671	1	Strap-Tie
5	94437	1	Tube-Suction
DECAL A	26937	1	Decal - Suction Tube

D. POWER UNIT — ILLUSTRATION - 1

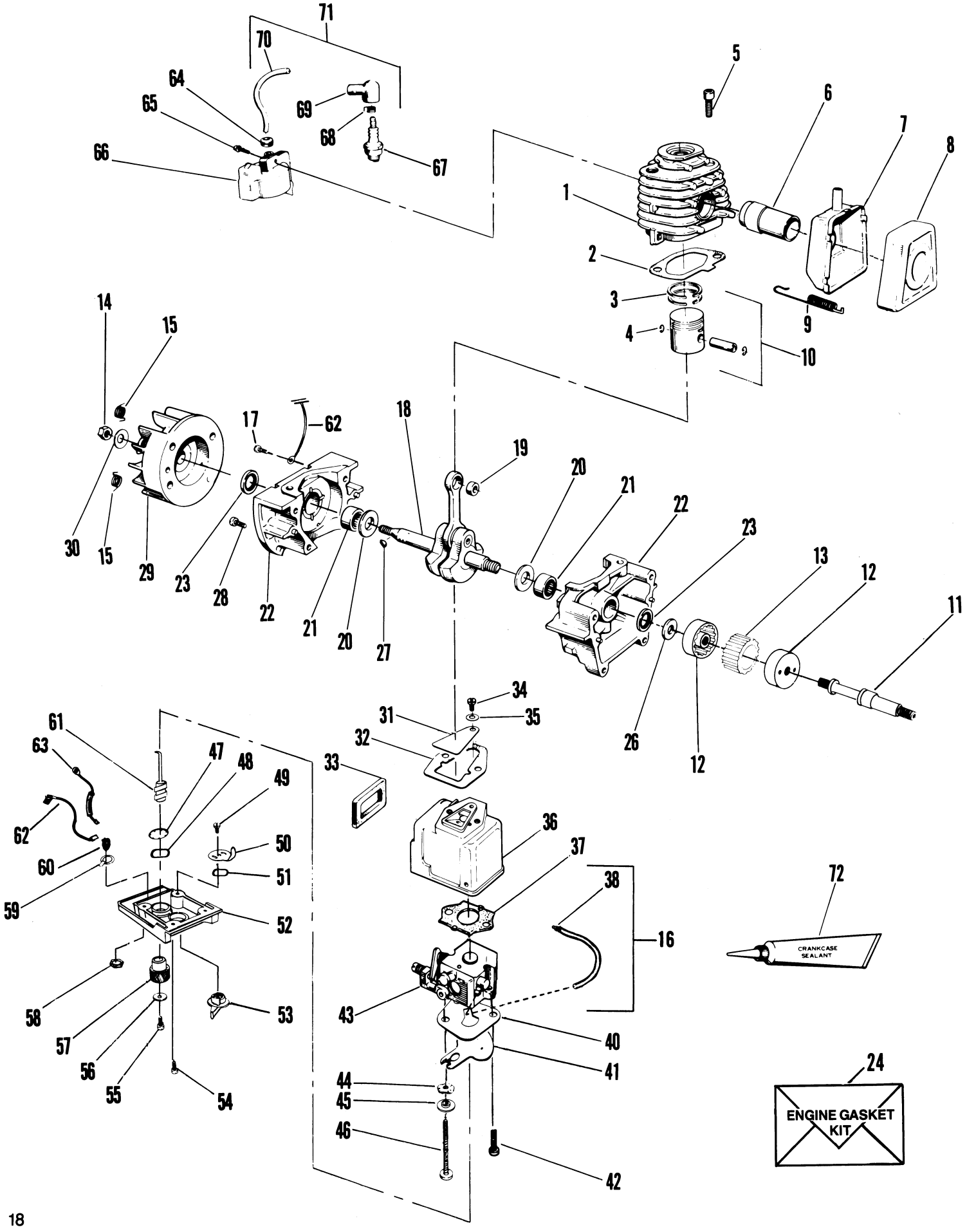


E. POWER UNIT — DESCRIPTION - 1

KEY NO.	PART NO.	QTY.	DESCRIPTION
1	10827	1	Ass'y - Handle w/Ring (Incl. #2)
2	15635	2	Screw - 10 - 14 x 11/16 Bind. Hd. - Handle
3	94212	1	Cover - Handle
4	27157	1	Wire - Static Ground
5	26994	3	Isolator - Handle
6	15343	1	Spacer - Isolator (Front)
7	26163	6	Cup - Isolator
8	15629	2	Washer #8 - Front
9	15628	2	Screw - 8 - 32 x 7/16 Bind. Hd. - Front
10	15561	2	Screw - 12 - 11 x 2
11	15342	2	Spacer - Isolator (Rear)
12	32091 *	1	Bearing - Ball Shroud
13	15700	2	Screw - 10 - 24 x 5/8 Bind. Hd. - Fan Hsg./Crankcase
14	24371	1	Air Filter
15	15687	4	Screw - #10 - 24 x 1" - Fan Hsg.
16	15685	1	Washer - #10
17	10860	1	Fan Housing
18	42023	1	Spring - Starter Pulley
19	26780	1	Baffle - Air
20	28626	1	Pulley Starter
21	15479	1	Screw - 10 - 3/4 Hex Hd. - Pulley
22	15123	1	Washer - Starter Pulley
23	15544	5	Screw - 10 x 3/8 Pan Hd. - Air Baffle and Ground Wire
24	69232	1	Rope Kit
25	26735	1	Handle - Starter Rope
26	26175	1	Wire - Ground
27	15664	1	Bolt - 1/4 - 20 x 1-1/2 - Clamp
28	94222	1	Clamp - Blower Tube
29	94242	1	Handle - Knob
30	15636	3	Screw #10 - Heat Deflector
31	26776	1	Deflector - Heat
32	10824*	1	Shroud (Incl. #12 & 45)
33	10835	1	Ass'y - Blower Hsg. (Incl. 9 of #38)
34	94215	1	Impeller
35	15661	1	Screw - 10 - 14 x 88 - Blower Hsg./Inlet Door
36	15495	1	Screw - #10 - 16 x 3/4" - Pivot Pin
37	1543	1	Nut - 10-24
38	15367	9	Screw - 10 - 14 x 3/4 Blower Hsg.
39	15644	1	Nut - Impeller
40	15441	1	Washer - Conical - Impeller
41	15626	1	Washer - Flat - Impeller
42	15632	4	Screw - 1/4 - 20 x 7/8 - Blower Hsg./Shroud
43	15682	4	Washer - Blower Hsg./Shroud
44	15168	4	Screw - 10 x 14 x 3/4 - Blower Hsg.
45	1516	1	Retainer - Bearing - Shroud
46	15667	1	Spring - Tension (Right)
47	15647	1	Pin - Pivot
48	15672	1	Spring - Tension (Left)
49	94241	1	Ass'y - Inlet Door
50	15638	1	Screw - 1/4 x 20 x 1/2 - Retainer
51	15637	1	Retainer - Fuel Tank
52	26781	1	Cushion - Fuel Tank
53	26931	1	Ass'y - Fuel Pick-up
54	21058	1	Line - Fuel - Tank
55	15382	1	Washer
56	10729	1	Ass'y - Fuel Cap (Incl. O Ring)
57	10815	1	Ass'y - Fuel Tank (Incl. #53, 54, & 56)
58	94230	1	Clamp w/Screw
59	15683	1	Screw - #10 - 24 x 5/8
60	10850	1	Rear Handle Assembly
61	27350	1	Shield - Fuel Tank
DECALS			
A	27309	1	Decal - Instruction
B	26761	2	Decal - Fan Housing (Left and Right)
C	26925	1	Decal - Warning Blower/Vac.

*When removing or installing the bearing (#32091), the area of the shroud (#10824) receiving the bearing must be heated to approximately 300°F. to avoid damaging the shroud.

F. POWER UNIT — ILLUSTRATION 2



G. POWER UNIT — DESCRIPTION 2

KEY NO.	PART NO.	QTY.	DESCRIPTION
1	12112	1	Cylinder
2	19111	1	*Gasket - Cylinder
3	26681	2	Ring - Piston 28cc
4	15162	2	Retainer - Wrist Pin
5	15239	2	Screw - 1/4 - 20 x 3/4 - Hex Soc Hd. - Cylinder
6	26949	1	Diffuser - Muffler
7	10809	1	Ass'y - Body-Muffler
8	24361	1	Cover - Muffler
9	24903	2	Spring - Muffler Attachment
10	69203	1	Piston Kit (Incl.#3, 4 & Pin)
11	94219	1	Shaft - Arbor
12	12145	2	Coupling - Shaft
13	94243	1	Coupling - Plastic
14	626605	1	Nut - Flywheel - 5/16 x 24
15	23817	2	Spring - Starter Dog
16	10875	1	Fuel Line & Fitting Ass'y.
17	15004	1	Screw #8 - 32 x 5/16"
18	10853	1	Ass'y - Crankshaft & Rod
19	32092	1	Bearing - Wrist Pin
20	15351	2	Washer - Thrust - Crankcase
21	32058	2	Bearing - Crankshaft
22	10757	1	Crankcase Ass'y. (Incl. #21 & 23)
23	19059	2	*Seal - Crankcase
24	69219	1	Engine Gasket Kit (*Indicates Contents)
26	15377	1	Washer - Coupling
27	15126	1	Key - Flywheel
28	15168	4	Screw - 10 - 24 x 5/8 Fil. Hd. Crankcase
29	39111	1	Flywheel Assembly (Incl. #15)
30	15127	1	Washer - Flywheel
31	24438	1	Reed Valve
32	19108	1	*Gasket - Carburetor Case to Crankcase
33	19105	1	*Seal - Carburetor Case
34	15241	1	Screw - 6 - 19 x 5/16 - Pan Hd. - Reed Valve
35	23367	1	Washer - Reed Valve Screw
36	26818	1	Case - Carburetor
37	19115	1	*Gasket - Carburetor
38	26981	1	Fitting - Fuel Line
40	26797	1	Guide Plate - Choke
41	26772	1	Shutter - Choke
42	15674	1	Screw - 10-24x7/8- Carburetor
43	35196	1	Carburetor
44	15254	1	Washer - Wave - Carburetor
45	15673	1	Spacer - Carburetor
46	15630	1	Screw - 10 - 24 x 2 3/8 - Carb. Shoulder
47	15654	1	Ring - External Retaining - Throttle
48	15147	1	Washer - Wave - Throttle
49	15407	1	Screw - 8 - 32 x 5/16 Pan Hd. - Choke Knob
50	26773	1	Actuator - Choke
51	15147	1	Washer - Wave - Choke
52	26764	1	Cover - Carb. Case
53	23807	1	Knob - Choke
54	15675	4	Screw - 8 - 18 x 5/8 Phil.
55	15660	1	Screw 10 - 14 x 3/8 - Throttle
56	15658	1	Washer - Flat Throttle
57	15614	1	Knob - Throttle
58	23575	1	Nut - Grounding Switch
59	24569	1	Washer - Ground
60	69204	1	Switch Toggle (Incl. #58 & 59)
61	26771	1	Ass'y - Throttle Wire
62	26951	1	Wire - Ignition
63	26829	1	Wire - Ground
64	24435	1	Grommet - Plug Wire
65	15128	2	Screw - 8 - 32 x 3/4 Fil. Hd. - Ignition Module
66	39124	1	Ignition Module
67	30005	1	Spark Plug (CJ-8)
68	3933	1	Connector - Spark Plug Lead
69	3934	1	Boot - Spark Plug
70	39082	1	High Tension Lead Wire
71	39103	1	High Tension - Lead Assembly - (Incl. #68, 69, & 70)
72	30054	1	Sealant - Crankcase - (Not Supplied With Unit)

*Indicates Engine Gasket Kit Contents

ACCESSORIES

ITEM	STOCK NO.
SAFETY GOGGLES	701506
2-CYCLE ENGINE OIL — 16:1 (8 oz.)	3039
— 32:1 (8 oz.)	30117
— 32:1 (4 oz.)	30119
FUEL CAP	701583
AIR FILTER	701568
SPARK PLUG	30077

PARTS AND SERVICE

Your Beaird-Poulan/Weed Eater product has been expertly engineered and carefully manufactured to rigid quality standards. As with all mechanical products, some adjustment or part replacement may be necessary during the life of your unit.

FOR SERVICE OR REPLACEMENT PARTS:

1. Consult the yellow pages of your phone directory for the name of the nearest Beaird-Poulan/Weed Eater Master Service Dealer (under saws or lawnmowers) or Skil Service Center (under tools-electric).

2. For replacement parts, have available the following information:

   a. Name of the unit
   b. Model number
   c. Part Number or description of part

NOTE: **Beaird-Poulan/Weed Eater provides parts and service through its authorized distributors and dealers, therefore, all requests for parts and service should be directed to your local dealer(s). Your dealer is an important source of information about new products and improvements to existing products. Always update your product when improvements are made available, especially those related to safety. Parts and repair service are not available directly from Beaird-Poulan/Weed Eater Division, Emerson Electric Co.**

BEAIRD-POULAN/ WEED EATER
Division Emerson Electric Company
Shreveport, Louisiana 71139-9329

66707-1-19986-1-20186